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10/669,619	09/24/2003	John Beers	200207357-1	5631

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EXAMINER

SORRELL, ERON J

ART UNIT PAPER NUMBER

2182

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/669,619

Applicant(s)

BEERS ET AL.

Examiner

Eron J. Sorrell

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Barrus (U.S. Patent No. 6,192,480).

3. Referring to claim 1, Barrus teaches a method for regulating power consumption and performance of a storage device (see figure 2), comprising:

providing an electronic storage device with an operational profile comprising at least two different settings to regulate power consumption and performance of the storage device (see line 62 of column 4 to line 26 of column 5);

displaying via a graphical illustration (see item 50 in figure 3) the operational profile and each of the two different settings for power consumption and performance of the storage device (See lines 51-65 of column 5); and

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selecting one of the two different settings to configure power consumption and performance of the storage device (see lines 51 of column 5 to line 35 of column 6),

wherein the different settings to regulate power consumption and performance are based upon a programmable data transfer rate (hard drive access times) of the storage device (see paragraph bridging columns 4 and 5).

4. Referring to claim 2, Barrus teaches selecting a first one of the two settings to increase performance of the storage device and to increase power consumption of the electronic device (see lines 7-35 of column 6).

5. Referring to claim 3, Barrus teaches selecting a second one of the two settings to decrease performance of the storage device and to decrease power consumption of the electronic device (see lines 7-35 of column 6).

6. Referring to claim 4, Barrus teaches displaying via a graphical illustration comprises showing a tradeoff between performance and power consumption for the storage device (see figure 3).

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7. Referring to claim 5, Barrus teaches displaying via a graphical illustration comprises presenting bar charts to show the tradeoff between performance and power consumption (see lines 31-32 of column 6).

8. Referring to claim 6, Barrus teaches the method of claim 1, further comprising:

providing the storage device with the operational profile comprising three different settings to regulate power consumption and performance of the storage device, wherein a first setting has a low power consumption and a low performance, a second setting has a medium power consumption and a medium performance, and a third setting has a high power consumption and a high performance (see figure 3 and lines 7-16 of column 6); and

displaying via the graphical illustration the operational profile and each of the three different settings for power consumption and performance of the storage device (see figure 3).

9. Referring to claim 7, Barrus teaches selecting one of the two settings comprises enabling a user to enter an input to the storage device to configure the storage device to one of the two

settings and alter power consumption and performance of the storage device (see lines 52-65 of column 5).

10. Referring to claim 8, Barrus teaches enabling the user to enter the input directly via a user interface and to save the operational profile to one of the two settings (see item 50 on figure 3).

11. Referring to claim 9, Barrus teaches a system for regulating power and performance of a storage device (see figure 2), comprising:

a storage device to be configured (see item 34 of figure 2); and

a budget configuration tool (power management utility process 42 of figure 2) coupled to the storage device wherein the budget configuration tool configures the power and performance of the storage device by setting device parameters associated with the storage device based on desired operation as selected by a user (see line 51 of column 5 to line 35 of column 6), wherein the device parameters comprise adjustable data transfer rate (see paragraph bridging columns 4 and 5).

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12. Referring to claim 10, Barrus teaches the user selects the desired operation in terms of a power and performance tradeoff (see lines 56 of column 7 to line 10 of column 8).

13. Referring to claim 11, Barrus teaches a configuration file (item 40 of figure 2) that can be accessed by the budget configuration tool, wherein the configuration file comprises information regarding device parameters associated with the storage device and an effect of setting the device parameters on the power and performance of the storage device (see lines 62 of column 4 to lines 26 of column 5).

14. Referring to claim 12, Barrus teaches at least one operation profile that can be accessed by the budget configuration tool, each operation profile corresponding to an operating mode of the storage device (see paragraph bridging columns 5 and 6).

15. Referring to claim 13, Barrus teaches a user interface where the user can select the desired operation of the system for use by the budget configuration tool (see lines 51-65 of column 5).

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16. Referring to claim 14, Barrus teaches a plurality of operation profiles is presented via the user interface for the user to select the desired operation (see line 67 of column 5 to line 35 of column 6).

17. Referring to claim 15, Barrus teaches the plurality of operation profiles is presented in terms of power and performance tradeoff (see lines 51-65 of column 5).

18. Referring to claim 16, Barrus teaches the user interface presents a graphic illustration of the power and performance tradeoff of the operation selected by the user (see lines 51-65 of column 35).

19. Referring to claim 17, Barrus teaches the user can select the desired operation via the graphic illustration (see line 51 of column 5 to line 35 of column 6).

20. Referring to claim 18, Barrus teaches a system for regulating power and performance of a storage device (See figure 2), comprising:



means for assisting a user in selecting a desired operation for a storage device based on the power and performance of the storage device (see lines 32-40 of column 7), the power and performance of the storage device being associated with a programmable data transfer rate of the storage device (see paragraph bridging columns 4 and 5) and

means for configuring the storage device for operation as desired by the user (see lines 56 of column 7 to line 30 of column 8).

21. Referring to claim 19, Barrus teaches means for a user to select a desired operating mode for a storage device from a plurality of operating modes for the storage device, wherein a selected operating mode corresponds to a desired operation of a storage device based on power consumption and performance of the storage device (see line 51 of column 5 to line 35 of column 6).

22. Referring to claim 20, Barrus teaches the system further comprises means for accessing information regarding device parameters associated with the storage device and how to set the device parameters for the desired operation of the storage device (see line 62 of column 4 to line 26 of column 5).

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*Claim Rejections - 35 USC § 103*

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Barrus in view of Busch et al (U.S. Patent No. 5,987,613 hereinafter "Busch").

25. Referring to claim 21, Barrus fails to teach the device parameters further comprising an adjustable sleep mode setting.

Busch teaches, in an analogous system, the above limitation (see lines 16-31 of column 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Barrus with the above teachings of Busch. One of ordinary skill would have been motivated to make such modification in order to extend the operating lifetime of the computer as suggested by Busch (see lines 6-14 of column 2).

26. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barrus in view of Kuroiwa et al. (U.S. Pub. No. 2003/0115507).

27. Referring to claim 22, Barrus fails to teach the device parameters further comprise and error checking setting.

Kuroiwa teaches, in an analogous system, the above limitation (see paragraph 38).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Barrus with the above teachings of Kuroiwa. One of ordinary skill would have been motivated to make such modification in order to further reduce power consumption (see paragraph 38).

#### ***Response to Arguments***

28. Applicant's arguments filed 10/20/05 have been fully considered but they are not persuasive. The applicant argues:

1) Barrus fails to teach or suggest the different settings to regulate power consumption and performance are based on a programmable data transfer rate of the storage device (see last

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paragraph of page 6, note the same argument is repeated on page 7).

29. **As per argument 1, the Examiner disagrees.** At lines 33-36 of column 1, Barrus teaches that "hard drive access times" affect the rate battery power is consumed. At lines 2-3 of column 5, Barrus discloses a data structure having programmable parameters that effect power consumption, and one of those parameters is hard drive access times, which is the rate at which reads or writes are performed or the data transfer rate.

#### ***Conclusion***

30. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EJS  
January 12, 2006

  
KIM HUYNH  
SUPERVISORY PATENT EXAMINER

1/16/06